AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph starting on page 4, line 23 as follows.

The apparatus is ~~able to~~ connected to ~~with~~ a measuring instrument via the interface unit and converts the measured signals to the digital form, then the digital signals are further compressed and stored in the storing unit.

Please amend lines 12-13 on page 5 as follows.

Fig. 5 is a diagrammatic representation of ~~the means of~~ a conventional fan method SASP2.

Please amend the paragraph starting on page 7, line 19 as follows.

Conventional recording method must store[[s]] two parameters, the quantity of data points accumulated from X0 to X3 and the value of the data point X4. The recording format is expressed in a form of (n3, X3), where n3 means the quantity from data points X0 to X3. Then, the data point X3 is used as a new starting point for next round. A new tolerable range applied to examine data point X5 is derived from data point X3, X4+ϵ and X4-ϵ. In this example, X5 also exceeds the tolerable range. Still referring to Fig. 1, data point[[s]] X5 is not in the predicted tolerable range obtained from X3, X4+ϵ and X4-ϵ. According to the aforementioned rule, the quantity of the data points from X3 to X4 and the value of X4 must be recorded in the form of (n4, X4), and then the data point X4 is deemed as a new starting point for next round. Similarly, since X6 exceeds the predicted tolerable error range, so (n5, X5) is recorded. With such a conventional data recording format, a lot of memory capacities is required.